1)

$S = A' + A' . B$

$S = A' . (1 + B)$

$S = A' . 1$

$S = A'$

2)

$S = (A + B) . (A + C)$

$S = A + B . C$

3)

$S = A' . B' . C' + A' . B . C' + A . B' . C$

$S = A' . C' . (B' + B) + A . B' . C$

$S = A' . C' . 1 + A . B' . C$

$S = A' . C' + A . B' . C$

4)

$Y = AB + ABC + A$

$Y = AB (1 + C) + A$

$Y = AB1 + A$

$Y = AB + A$

$Y = A(B + 1)$

$Y = A1$

$Y = A$

5)

$Y = ABC(AB+C(BC+AC))$

$Y = ABC(AB+(BCC+ACC))$

$Y = ABC(AB+(BC+AC))$

$Y = ABC(AB+BC+AC)$

$Y = ABCAB+ABCBC+ABCAC$

$Y = AABBC + ABBCC + AABCC$

$Y = ABC + ABC + ABC$

$Y = ABC + ABC$

$Y = ABC$